

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-180. (canceled)

181. (previously presented) An adjustable arm assembly attachable at one end to a suitable vehicle and capable of deployment substantially orthogonally to the direction of movement of said vehicle; said arm being elongated and including two or more articulatedly connected sections and one or more actuators capable of changing the orientation of at least two said sections with respect to each other; a lower or outer surface of at least one said section forming two substantially coplanar working surfaces; and a conveyor arranged to be driven in one direction along one said working surface and in the opposite direction along the second said working surface, said conveyor being provided with at least one tool adapted for interaction with a terrain surface.

182. (previously presented) The adjustable arm assembly of claim 181, wherein the lower or outer surfaces of two or more said sections form continuous working surfaces.

183. (previously presented) The adjustable arm assembly of claim 182, wherein said working surfaces of each section may be longitudinally curved or straight in the vertical plane.

184. (previously presented) The adjustable arm assembly of claim 183, wherein two or more of said working surfaces are of different lengths longitudinally or laterally.

185. (previously presented) The adjustable arm assembly of claim 184, wherein the longitudinal curvature of each working surface can be altered in the vertical plane by said actuators.

186. (previously presented) The adjustable arm assembly of claim 181, wherein each actuator is capable of altering an angle between adjacent sections to coil the arm assembly for transport or storage and to uncoil the arm assembly for use.

187. (previously presented) The adjustable arm assembly of claim 186, wherein said actuators are attached between adjacent sections and between an attached end of said arm and a vehicle mounting assembly.

188. (previously presented) The adjustable arm assembly of claim 187, wherein separate conveyors are provided for each section.

189. (previously presented) The adjustable arm assembly of claim 188, wherein each conveyor is separately provided with at least one drive.

190. (previously presented) The adjustable arm assembly of claim 189, wherein said conveyor is constrained by a slotted track on each working surface with each tool projecting outwardly from said track.

191. (previously presented) The adjustable arm assembly of claim 190, wherein said conveyor is constrained to move within a closed path and around at least two direction-changing devices.

192. (previously presented) The adjustable arm assembly of claim 191, wherein at least one said direction-changing device is a drive.

193. (previously presented) The adjustable arm assembly of claim 192, wherein at least one section is formed from two sub-units which may be pivoted with respect to each other about a mutual pivot axis orthogonal to the direction of movement of said vehicle.

194. (currently amended) The adjustable arm assembly of claim 193, wherein a the vertical elevation of a the-portion of the conveyor along one longitudinal edge with respect to a the-portion of the conveyor along an the-opposing longitudinal edge is adjustable by pivoting said sub-units about said mutual pivot axis.

195. (previously presented) The adjustable arm assembly of claim 191, wherein portions of said conveyor intermediate said direction-changing devices are substantially parallel and extend substantially along opposing longitudinal edges of said working surfaces.

196. (previously presented) The adjustable arm assembly of claim 195, wherein said portion of the conveyor along one longitudinal edge of at least one working surface is vertically elevated with respect to said portion of the conveyor along the opposing longitudinal edge of the opposing working surface.

197. (previously presented) The adjustable arm assembly of claim 196, wherein the vertical elevation of the portion of the conveyor along one longitudinal edge with respect to the portion of the conveyor along the opposing longitudinal edge is adjustable.

198. (previously presented) The adjustable arm assembly of claim 197, wherein the vertical elevation is adjustable by pivoting the arm assembly about a horizontal axis co-planar with a longitudinal axis of the arm assembly.

199. (previously presented) The adjustable arm assembly of claim 197 or claim 198, wherein the vertical elevation is adjustable by pivoting or height adjusting at least one of the direction-changing devices.

200. (previously presented) The adjustable arm assembly of claim 181, wherein said conveyor is selected from the group consisting of a chain, a belt, a rope, a wire and a hawser.

201. (previously presented) The adjustable arm assembly of claim 181, wherein said tool is adapted for cutting, scraping, pushing, packing, smoothing or rolling said terrain surface.

202. (previously presented) The adjustable arm assembly of claim 181, wherein said terrain surface includes snow, ice, sand, soil, mud, building debris, grass, crops, undergrowth, coal, aggregate, or particulate substances.

203. (previously presented) The adjustable arm assembly of claim 181, wherein the at least one tool is selected from the group consisting of a paddle, a scraping element, a rasping element, a cutter shaft, a spiral cutter, a brushing roller, and a pick-up roller.

204. (previously presented) The adjustable arm assembly of claim 181, wherein the at least one tool is rotatably mounted.

205. (previously presented) The adjustable arm assembly of claim 181, wherein said arm assembly is pivotably attachable to said vehicle about a vertical axis, enabling each section to be pivoted for deployment on either side of said vehicle.

206. (previously presented) The adjustable arm assembly of claim 181, wherein said arm assembly may be moved in a vertical plane.

207. (previously presented) The adjustable arm assembly of claim 181, wherein said arm assembly may be moved transversely to the direction of movement of the vehicle.

208. (previously presented) The adjustable arm assembly of claim 181, wherein the arm assembly may be at least partially rotated about an axis in a horizontal plane.

209. (previously presented) The adjustable arm assembly of claim 181, wherein one or more supporting devices are located at predetermined fixed positions about one or more working surfaces.

210. (previously presented) The adjustable arm assembly of claim 209, wherein said predetermined fixed positions include longitudinal edges of said working surfaces or between said working surfaces.

211. (previously presented) The adjustable arm assembly of claim 210, wherein at least two of said supporting devices are laterally offset with respect to each other.

212. (previously presented) The adjustable arm assembly of claim 211, wherein one or more of the supporting devices are formed as the tool.

213. (previously presented) The adjustable arm assembly of claim 212, wherein one or more of the supporting devices are configured to contact the terrain surface during use to

thereby provide support by transferring at least a portion of the arm assembly weight to the terrain surface.

214. (previously presented) The adjustable arm assembly of claim 181, wherein at least one section is independently pivotable with respect to an adjacent section about an axis orthogonal to a direction of movement of the arm assembly when deployed and in use.

215. (previously presented) The adjustable arm assembly of claim 181, wherein one or more flexible grooming elements may be affixed to a longitudinal edge of one or more working surfaces facing away from the direction of movement of said vehicle, and are configured such that a trailing edge of each grooming element is wiped across an adjacent terrain surface when in use.

216. (previously presented) The adjustable arm assembly of claim 215, wherein said grooming elements are detachable.

217. (previously presented) The adjustable arm assembly of claim 216, wherein said grooming elements are movable between an in-use position and a stand by position, whereby said grooming elements are retained in the stand-by position, out of contact with the terrain surface.

218. (previously presented) The adjustable arm assembly of claim 217, wherein said grooming elements are located along opposing longitudinal edges of said working surfaces.

219. (previously presented) The adjustable arm assembly of claim 181, wherein said arm assembly is integrally attached to said vehicle.

220. (previously presented) The adjustable arm assembly of claim 181, wherein said arm assembly is pivotably attachable to said vehicle by a detachable vehicle mounting assembly.

DOCKET NO.: PLBA-0004
Application No.: 10/088,323
Office Action Dated: November 30, 2004

PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116

221. (previously presented) The adjustable arm assembly of claim 181, wherein the at least one tool is hinged to move freely in one direction along a longitudinal axis of the sections, but is fixed in the reciprocal direction.

222. (previously presented) The adjustable arm assembly as of claim 181, wherein the at least one tool is hinged to move freely in one direction orthogonal to a longitudinal axis of the sections, but is fixed in the reciprocal direction.

223. (previously presented) The adjustable arm assembly of claim 181, wherein said conveyor is capable of bi-directional movement.

224. (previously presented) The adjustable arm assembly of claim 181 or claim 220, in combination with a snow grooming machine.